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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/662,526

09/16/2003

Masahide Okazaki

65326-030

1699

7590

10/07/2005

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EXAMINER

MACK, RICKY LEVERN

ART UNIT

PAPER NUMBER

2873

DATE MAILED: 10/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/662,526	Applicant(s) OKAZAKI, MASAHIDE	
	Examiner Ricky L. Mack	Art Unit 2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 May 2005 and 10 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 9-34 is/are pending in the application.
- 4a) Of the above claim(s) 12-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 9-11 and 31-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>Detailed Action</u> . |

DETAILED ACTION

Allowable Subject Matter

1. The indicated allowability of claims 9-11 are withdrawn in view of the newly discovered reference(s) to Fukuchi et al. (JP408043641A) and Zhu (20020131701A1). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

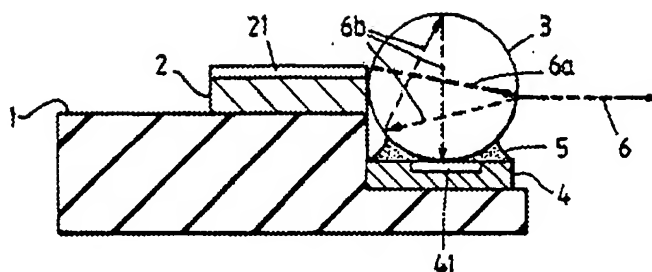
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Musk (4983009).

Musk discloses, as in claim 1, an optical element module (see fig. 2) comprising: a base part (4) to which a predetermined reference optical axis (6b) is relatively fixed; an optical element (3) positioned with respect to said reference optical axis, being out of contact with said base part; and solder (5) interposed between said optical element and said base part, for fixing said optical element onto said base part.

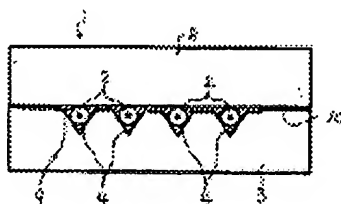


Musk discloses, as in claim 31, wherein said solder (5) is interposed between at least both of opposite sides of said optical element (3) and said groove (see groove in base; ref. no. 4) with respect to said reference optical axis (6b).

4. Claims 1-3, 9, 10 and 31-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Fukuchi et al. (JP408043641A).

Fukuchi discloses, as in claim 1, an optical element module (see fig. 2 below) comprising: a base part (3) to which a predetermined reference optical axis (axis parallel to optical fiber 2) is relatively fixed; an optical element (2) positioned with respect to said reference optical axis, being out of contact with said base part; and solder (9) interposed between said optical element and said base part, for fixing said optical element onto said base part.

【図2】



Fukuchi discloses, as in claim 2, wherein said base part is a part which is fixed to another optical element which determines said reference optical axis (see the plurality of optical elements (2) relative to said base part (3)).

Fukuchi discloses, as in claim 3, wherein said optical element is a collimator lens, for which a optical element is.

Fukuchi discloses, as in claim 9, an optical element module (see fig. 2 above) comprising: a base part (3) to which a plurality of reference optical axes are relatively fixed (axis parallel to optical fiber 2); a plurality of optical elements (2) which are positioned with respect to said plurality of reference optical axes, respectively, being out of contact with said base part; and solder (9) interposed between each of said plurality of optical elements and said base part, for fixing each of said optical elements to said base part (see abstract).

Fukuchi discloses, as in claim 10, wherein each of said plurality of optical elements is an optical fiber (2).

Fukuchi discloses, as in claim 31, wherein said solder (9) is interposed between at least both of opposite sides of said optical element (2) and said groove (see groove in base; ref. no. 4) with respect to said reference optical axis.

Fukuchi discloses, as in claim 32, wherein said solder (9) is interposed between more than half of an outer peripheral surface of said optical element (2) and said groove (4).

Fukuchi discloses, as in claim 33, wherein said optical element (2) has a cylindrical outer peripheral surface, as is inherent in a optical fiber element.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Séguin (6574411).

Séguin discloses, as in claim 1, an optical element module (see fig 4.) comprising: a base part (12) to which a predetermined reference optical axis is relatively fixed; an optical element (10) positioned with respect to said reference optical axis, being out of contact with said base part; and solder (26) interposed between said optical element (10) and said base part (12), for fixing said optical element onto said base part (col. 3, lines 50).

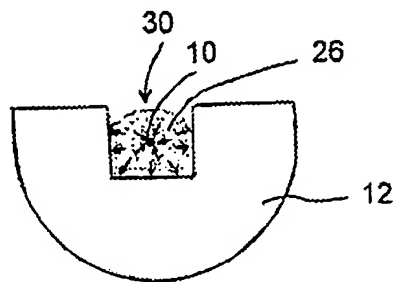


FIG. 4

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuchi et al. (JP408043641A) in view of the disclosed prior art.

Fukuchi et al. discloses the claimed invention except for another optical element being a semiconductor light emitting element, as in claim 4. Within the same field of endeavor, the disclosed prior art teaches a semiconductor light emitting element (semiconductor laser). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the provide the optical module with a semiconductor light emitting element for the purpose of providing a less expensive, more efficient and more compact laser delivery systems with substantial output power.

9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuchi et al. (JP408043641A) in view of Zhu (20020131701A1).

Séguin discloses the claimed invention except for said plurality of reference optical axes are respective axes of lenses in a microlens array, as in claim 11. Within the same field of endeavor, Zhu discloses an optical module wherein respective axis optical fiber array are aligned with a microlens array. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the optical module of Séguin with a microlens array as disclosed by Zhu for the purpose of focusing the light from the fiber array upon an object as is well known in the art.

10. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuchi et al. (JP408043641A) in view of Rhee et al. (6219484).

Fukuchi et al. discloses the claimed invention except for the groove being u-shaped, as in claim 34. Rhee discloses an optical module having an plurality of optical element in a groove which Rhee discloses (col. 2, lines 50-54). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the optical module of Fukuchi with a u-shaped groove for the purpose containing optical fibers.

11. Applicant's arguments filed 5/31/05 have been fully considered but they are not persuasive. The optical element disclosed by Musk is out of contact with the base (4) element as claimed. Musk disclosure read on the limitation of applicant's claimed invention therefore, it is an optical transmitter assembly does not take away for Musk meeting the limitations of claim 1.

12. Applicant's arguments with respect to claims 2-4 and 31-34 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following references are cited for disclosing a substrate, which is fixed to a lens mount by solder or (laser) welding:

Krivoshlykov (5909614) is cited for disclosing some benefits of semiconductor laser diodes such as less expensive, more efficient and more compact laser delivery systems with substantial output power.

Nakamura et al. (4174491), Osugi et al. (6160947) and Furuyama (JP406174943A) are cited for disclosing optical device comprising a groove and an optical element mounted therein and secured with solder.

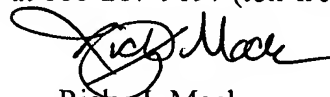
14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ricky L. Mack whose telephone number is (571) 272-2333. The examiner can normally be reached on Monday-Friday (6:30 AM to 4:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y. Epps can be reached on (571) 272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ricky L Mack
Primary Examiner
Art Unit 2873

RM
September 26, 2005